

**Notice of Allowability**

Application No.

09/680,345

Examiner

Pedro J. Cuevas

Applicant(s)

BAARMAN ET AL.

Art Unit

2834

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to amendment filed on January 15, 2004.
2. ☒ The allowed claim(s) is/are 1,3-18,29,32-41,53-56 and 58-78.
3. ☒ The drawings filed on 05 October 2002 are accepted by the Examiner.
4. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) ☐ All b) ☐ Some\* c) ☒ None of the:
  1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
  6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
    - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
      - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
    - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date \_\_\_\_\_
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413), Paper No./Mail Date \_\_\_\_\_
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other \_\_\_\_\_.

## DETAILED ACTION

### *Response to Arguments*

1. Applicant's arguments, see pages 12-13, filed February 18, 2003, with respect to claims 1, 3-18, 29, 32-41, 53-56, and 58-78 have been fully considered and are persuasive. The U.S.C. § 103 rejections of claims 1, 3-18, 29, 32-41, 53-56, and 58-78 has been withdrawn.

Lerner et al. clearly teaches the construction of a portable self-contained power conversion unit without flux concentrators, comprising:

a housing that includes an inlet supplied with a liquid from a liquid treatment system, the fluid being drinking water, and an outlet, comprising a first section and a second section, the first section detachably coupled with the second section to facilitate assembly and maintenance;

a rotor which comprises a shaft and a turbine rotor including a helical ridge/vanes rotatably positioned within the housing such that the rotor is rotated by a flow of fluid through the housing; and

a stator fixedly positioned within the housing to surround the rotor such that rotation of the rotor induces the production of electricity, which can be alternating or direct current by using either an AC or DC generator, or a rectified AC to DC generator, wherein the rotor and stator are disposed in the second section and the turbine nozzle is disposed in the first section.

Feltenberger et al. teach the construction of a high torque impulse turbine having a turbine nozzle fixedly coupled with the housing, wherein the turbine nozzle comprises a tip and a plurality of struts operable to direct the flow of water to the rotor at increased velocity to rotate the rotor, and is operable to increase the velocity of the fluid and direct the flow of fluid to

achieve a predetermined angle of incidence of the fluid upon the rotor for the purpose of obtaining a wide variety of operating conditions and output characteristics from the water turbine.

Sato et al. teach the construction of a pipeline built-in electric power generating set having a stator fixedly positioned to surround the housing adjacent the rotor, a plurality of exit guide vanes and a fin, and multiple paddles forming blades with slots, for the purpose of enabling a flow of steam from the pipes through the in-line generator.

Sheeks teaches the construction of a rate-of-flow meter, wherein the rotation of the rotor is operable to provide flow-based measurements of the fluid for the purpose of providing an improved turbine type of rate-of-flow meter with attached generator, and the rotor or stator comprise a permanent magnet.

Ballast – General Information sheet disclose the use and operation of UV light sources (discharge lamps) with control devices called electromagnetic ballasts, which dynamically adjust the voltage and current levels of input energy using a plurality of switchable coils and a plurality of taps.

Electric Lamps (a brief history since Edison) disclose the use of UV light sources having ballasts prior to June 1995.

Redmond teaches the construction of an energy salvaging system having gravitationally conducting wet sewage for the purpose of allowing shaft to do work, like generating electricity via electric generator in amounts suitable for lighting.

#### ***Allowable Subject Matter***

2. Claims 1, 3-18, 29, 32-41, 53-56, and 58-78 are allowed.
3. The following is an examiner's statement of reasons for allowance.

The prior art of record, taken alone or in combination, fails to teach the construction of:

a hydro-powered generation system as described on independent claims 1, 60, and 72, comprising a turbine nozzle fixedly coupled with the housing and concentrically positioned near the inlet of the passageway, wherein the turbine nozzle comprises a tip and a plurality of struts, the-tip configured to increase the velocity of the flow of liquid by diversion of the liquid outwardly toward the inner wall, and the struts configured to direct the flow of liquid through a plurality of channels to the rotor; and

a method of supplying electricity using a flow of liquid as described on independent claim 29, comprising directing the flow of liquid outward towards an inner wall of the passageway with a tip of a turbine nozzle to increase the velocity of the flow of liquid, and directing the flow of liquid to the rotor through a plurality of channels formed with a plurality of struts included with the turbine nozzle to further increase the velocity of the flow of liquid.

Dependent claims 3-18, 32-41, 53-56, 58-59, 61-71, and 73-78 considered allowable by their respective dependence on allowed independent claims 1 and 29.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Pedro J. Cuevas whose telephone number is (571) 272-2021. The examiner can normally be reached on M-F from 8:30 - 6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Darren Schuberg can be reached on (571) 272-2044. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Pedro J. Cuevas  
March 25, 2004



**Nicholas Ponomarenko**  
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**Technology Center 2800**